

WHY VERIFY LABELS FOR PERMANENCY?

Automotive, Power Equipment, PowerSports and other industrial durable polyolefin label applications require “permanent” safety/warning labeling that satisfy respective industry standards while enduring without failure over life-use, usually three years or more. It’s imperative that “permanent labeling” be VERIFIED permanent especially when applied to Low Surface Energy (LSE) Polyolefin Plastic in order to keep consumers safe while mitigating litigious risk to Manufacturers/OEM’s.

Misleading “permanent labels” sold by suppliers and converters specifically for use on LSE polyolefin durable goods have NEVER BEEN TESTED for exposures and durability on actual LSE panels.

MIGS and Patented Polyfuze Fusion Technology (PPFT) labels HAVE BEEN TESTED and VERIFIED on LSE panels, easily surpassing Permanency Verification Test Methods that include thousands of additional test hours in automotive grade weatherometer machines along with outdoor exposures in Arizona. You owe it to yourself and your customers to conduct the following Permanency Verification Tests on your current labeling method.

Permanency Verification Test Procedure

Label should be applied to a single LSE polyolefin test panel according to the manufacturers recommended application procedure and tested in sequence Stage 1 – Stage 3 shown below.



Stage 1: Cross-Hatch Tape Test:

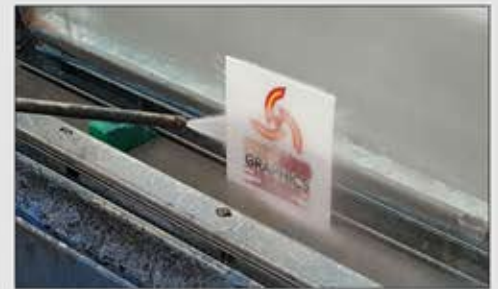
ASTM D3359 checks for initial label adhesion and separation while simultaneously simulating scratching and gouging a label encounters during life-use. Label separation and/or transfer onto tape confirms exposure and failure.

<https://www.youtube.com/watch?v=DvU-VJ6EAOMg>



Stage 2: Exposure to Harsh Chemicals:

Completely submerge previously cross-hatched label area of the test panel in Lacquer Thinner for 24-hour Soak to simulate exposure to harsh chemicals over life-use. Remove sample, thoroughly dry with clean cloth and repeat cross-hatch tape test (stage 1) over previously cross-hatched area. Label loss, separation, or discoloration confirms ongoing failure.



Stage 3: Pressure Washing:

Pressure wash the previously cross-hatched area of label on the test panel for:

- 3:00 Minute Cycle
- 1200psi Minimum
- 49° C (120F) Maximum Temperature
- 6" Maximum Distance

Remove sample, thoroughly dry with clean cloth and repeat stage 1.

Optional Testing: Exposure to UV / Weathering:

As an additional verification test, we recommend having a third-party lab conduct an ASTM D4587 accelerated weather test on your label applied to LSE polyolefin plastic panels. ASTM D4587 is an automotive grade test simulating harsh UV and weatherability a durable good and label encounters over life-use.



For more information on MIGS or Polyfuze Premium Labels, visit moldingraphics.com, polyfuze.com or call (928)634-8838





Permanency Verification Test Worksheet

For Labeling of Low Surface Energy (LSE) Polyolefin Plastic

Most “permanent” labeling methods are constructed of multiple layers including inks, protective coatings and adhesives.

Polyfuzer / Mold in Graphic System labels on the other hand are totally different. Constructed of just a single layer of pigmented polymer, Polyfuzer / Mold in Graphic System label are raw polymer that fuses into Low Surface Energy polyolefin plastic on a subsurface level providing truly permanent labeling for the life of your product.

To prove permanency, our company conducts pre-testing of all outgoing samples:

- Please view the following link to view the Permanency Verification Test Procedure www.polyfuzer.com/label-verification

If you care about permanent labeling for your Brand Name, Logo & Safety/Warning labeling, you owe it to yourself to ask questions and conduct the tests shown below.

- ✓ Ask your current label supplier for a Data Sheet showing label durability tests conducted on LSE polyolefin plastic (not stainless steel, aluminum or glass).
- ✓ Ask your current label supplier if they can provide a lifetime warranty.
- ✓ Lastly, conduct your own tests with the guideline shown below to validate whether your current label is permanent or not.

Test Conducted by:	Date Conducted:	Test Results:	Test Notes:
Stage 1: Cross-Hatch Tape Test (ASTM D3359)			
Stage 2: Exposure to Harsh Chemicals (24-Hour Full Immersion Lacquer Thinner Soak Test)			
Stage 3: Pressure Washing Test, (3:00 min, 1,200 psi, 49 degrees, 6" distance - then repeat tape test over previously cross-hatched area)			
Optional Test: Exposure to UV / Weathering (See Test Procedure on page 1 for details)			

View our Lifetime Warranty at www.polyfuzer.com/warranty